NAD SERVICE MANUAL

5420
5425

COMPACT DISC PLAYERS

SAFETY INFORMATION

CAUTION

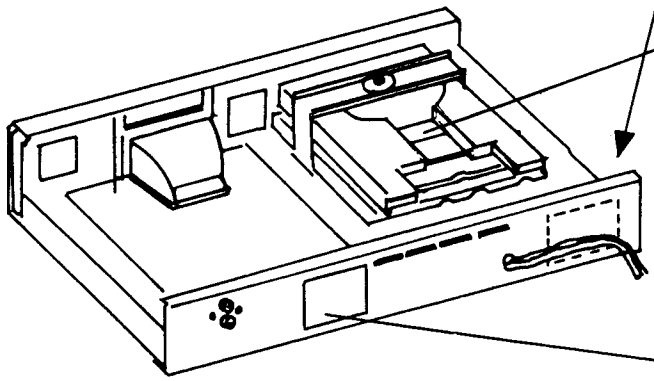
CAUTION– INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

VORSICHT! UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN!

VARNING– OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

ADVARSEL– USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

ATTENTION– RAYONNEMENT LASER ET ELECTROMAGNETIQUE DANGEREUX SI OUVERT AVEC L' ENCLENCHEMENT DE SECURITE ANNULE.



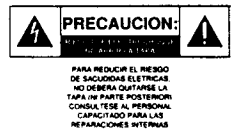
CLASS 1 LASER PRODUCT

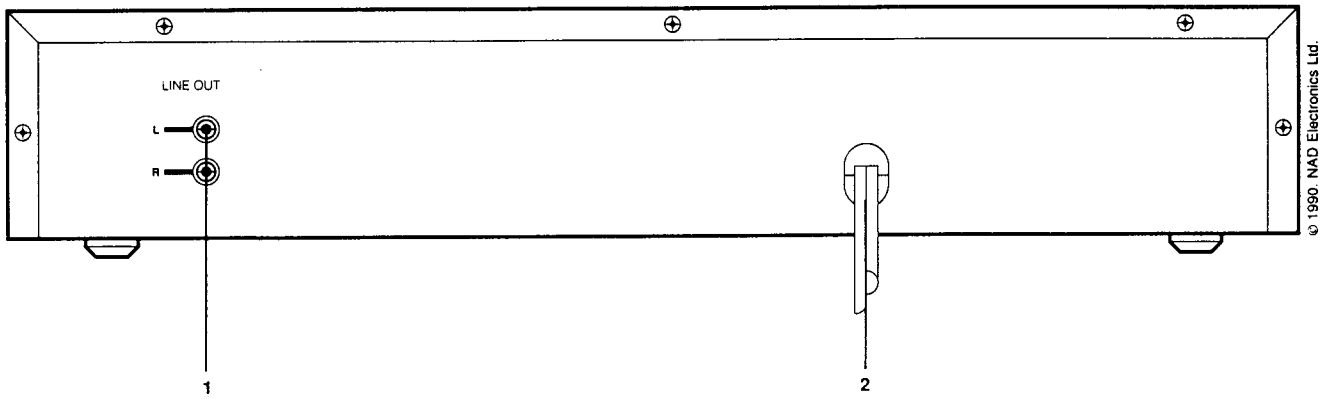
The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED OPERATION.

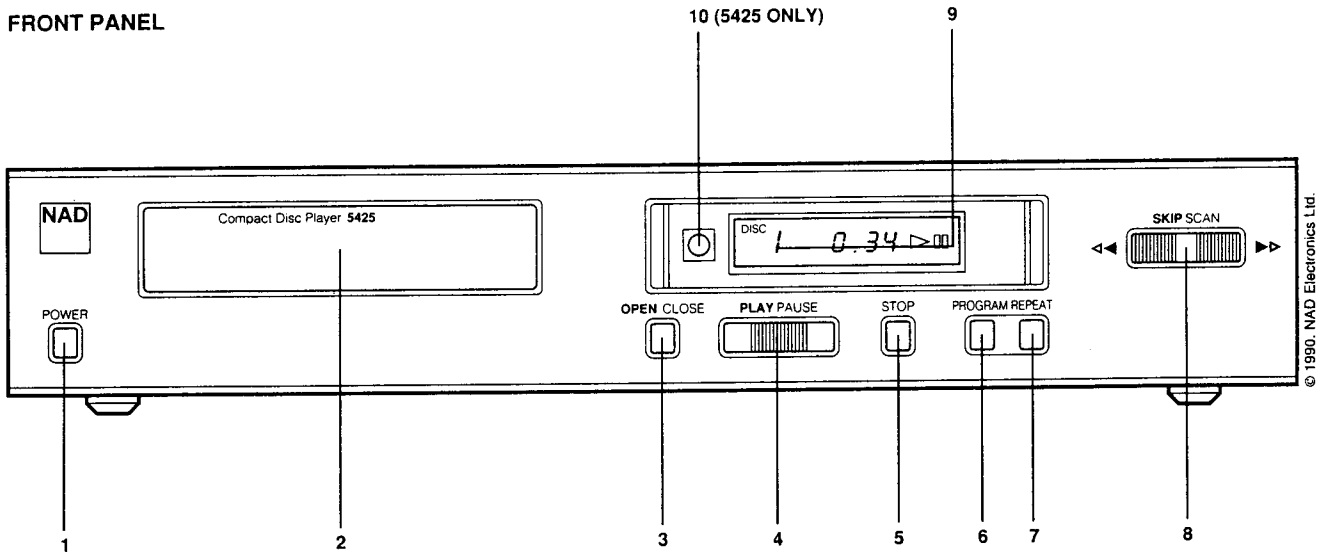
REAR PANEL CONNECTIONS





1. OUTPUT JACKS 2. AC LINE CORD

FRONT PANEL



1. POWER ON/OFF 2. DISC DRAWER 3. OPEN/CLOSE

4. PLAY/PAUSE 5. STOP 6. PROGRAM/DISPLAY

7. REPEAT 8. SKIP/SCAN 9. DISPLAY

10. REMOTE RECEIVER (5425 ONLY)

PAGE	CONTENTS
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SPECIFICATIONS NAD 5420/5425 COMPACT DISC PLAYER

Disc capacity	Single disc,120 or 80 mm
Programming capability	16 tracks
Digital-to-Analogue Convertion	MASH, 18-bit resolution.
Digital filter	4 times over-sampled,linear phase with 18-bit coefficients
Analogue filter	5-pole active
Frequency response 5 Hz-20 KHz :	-0/-0.5 dB
De-Emphasis error	<±0.3 dB
THD (at 0 dB,1 KHz)	0.0025%
Intermodulation distortion (19 & 20 KHz)	<-100 dB
Dynamic range	98 dB
Linearity	±0.5 dB; 0 to -90 dB
Signal-to-noise ratio A weighted	
de-emphasis off	106 dB
de-emphasis on	110 dB
Channel Separation 1 KHz	>100 dB
10 KHz	>80 dB
Wow and flutter	Unmeasureable (quartz crystal accuracy)
Output impendance	120 Ohms
Output level at 0 dB	2 Vrms
Digital error correction	CIRC with double error correction in C1 and C2

PHYSICAL SPECIFICATION

Width*hight*depth	420*90*260 mm
Net weight	4.1 Kg
Shipping weight	4.9 Kg

ALIGNMENT PROCEDURE

REQUIRED INSTRUMENTS: SPECIAL JIG (SEE FIG.1)
OSCILLOSCOPE (BANDWIDTH GREATER THAN 40 MHz)
FREQUENCY COUNTER
TEST DISK (SONY YEDS-7)

> NOTE:
> Exact adjustment can only be performed with special factory jigs etc.. However the following alignment procedure should produce a well aligned player assuming no fault conditions are present. It is suggested that the position of the preset resistors setting is noted or marked before any adjustment is attempted so that these settings can be returned to, should no improvement be noted after adjustment.

Please refer to page 12 for the physical location of the adjustment and test points.

Step A: PLL Adjustment

(1) Turn power ON and press the STOP key.
(2) Short circuit P108 (ASSY) to P107 (GND)
(3) Connect the frequency counter to P106 (CLK) and P107 (GND)
(4) Adjust RV101 for a reading of 4.2318± 0.01MHz.
(5) After adjustment is completed remove the short circuit between P108 and P107.

Step B: RF Adjustment

(1) Load the test disc and set the unit into PLAY mode.
(2) Connect the scope to P109 (RF) and P107 (GND).
Scope setting: Coupling : AC
Vertical sensitivity: 0.2V/div
Horizontal time base: 0.5uS/div
(3) Adjust RV102 so that the 3T component of the waveform is maximun and the eye pattern is at its best shape (see Fig 2)

Step C: EF Balance adjustment

(1) Turn the power OFF, remove P111 and replace it with the special jig shown in Fig 1.
(2) Connect the scope as shown Fig 1 and switch the jig to the "ON" position.
scope setting: Coupling : DC.
Vertical sensitivity: 0.5V/div.
Horizontal time base: 2 mS/div.

(3) Load the test disc and put the unit into the PLAY mode.
(4) Adjust RV103 so that the tracking error waveform is symmetrical. (See Fig 3)

NOTE: BEFORE CONTINUING REFER TO PAGE 8 FOR GUIDANCE ON FOCUS AND TRACKING GAIN ADJUSTMENT.

Step D: Focus gain adjustment

(1) Switch the special jig to "OFF" and leave the scope connected.
(2) Scope settings: Coupling : DC
Vertical sensitivity: 0.1V/div
Horizontal timebase : 2mS/div
(3) Adjust RV105 so that the DC level is between 120 and 200mV.
(4) Turn the power OFF,remove the jig and return the original socket to P111.

Step E: Tracking gain adjustment

(1) Turn the power ON, load the test disc and press PLAY.
(2) Connect the scope to pin 3 of P111.
Scope setting: Coupling : DC
Vertical sensitivity: 0.2v/div
Horizontal timebase : 2mS/div
(3) Adjust RV104 so that the waveform is as shown in Fig 4(a).

FIG. 1

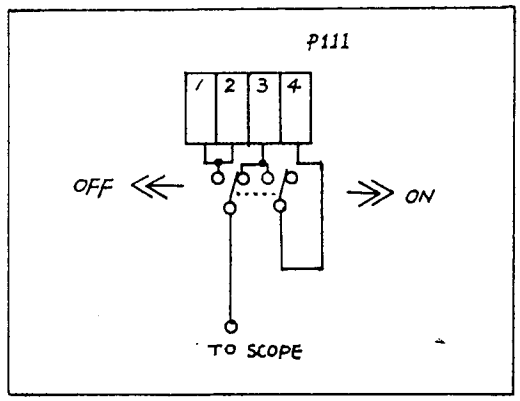


FIG.2(a)

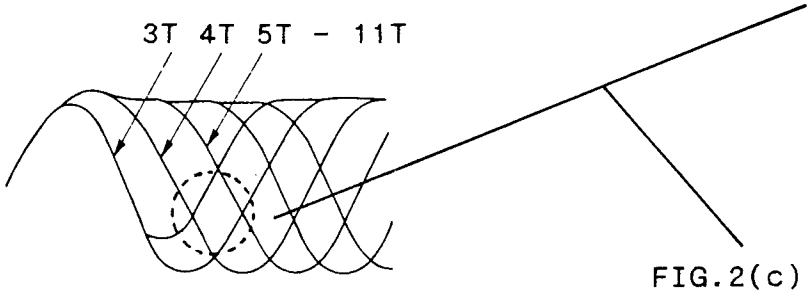


FIG.2(b) Poor eye pattern

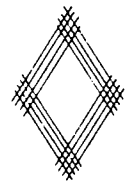


FIG.2(c) Good eye pattern

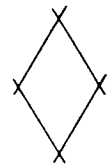


FIG.3

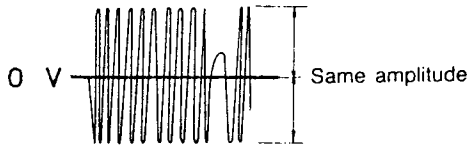


FIG.4(a) Good waveform

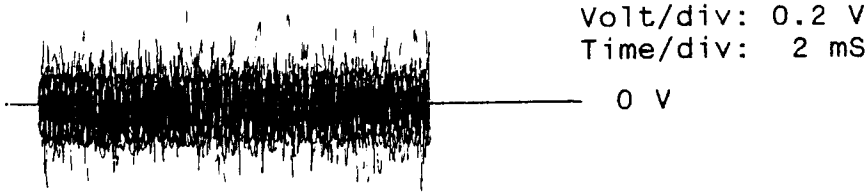


FIG.4(b) High tracking gain

(higher frequency than for low gain)

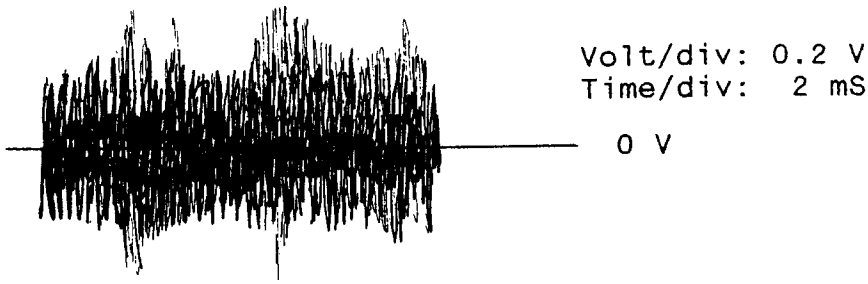
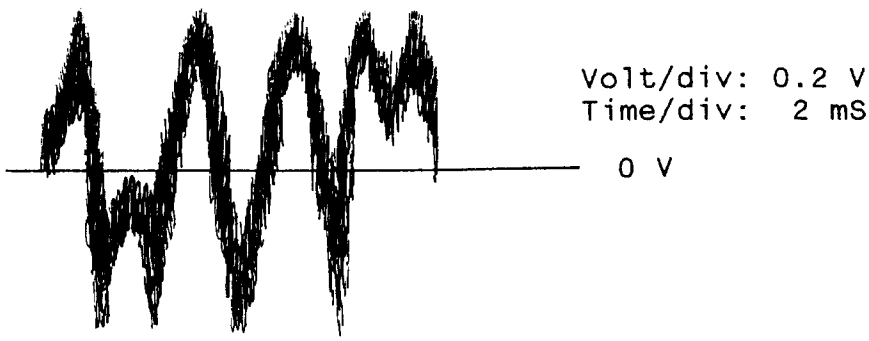


FIG.4(c) Low tracking gain



FOCUS/TRACKING GAIN ADJUSTMENT

NOTE: It is recommended that these adjustment are not carried out unless absolutely necessary.

A frequency response analyzer is necessary to carry out this adjustment precisely. However this adjustment has a wide tolerance so that even if the adjustment has not been performed exactly the player will still work with an acceptable level of performance.
The focus and tracking gain determine not only the vertical and horizontal tracking characteristics, but also the amount of mechanical noise from the optical blocks two axis device and its sensitivity to mechanical shock. Correct adjustment will be at the point where all the above criteria are satisfied.

* When the gain is too high, the mechanical noise is high.

* When the gain is too low,the susceptibility to mechanical shock and skipping will be poor.

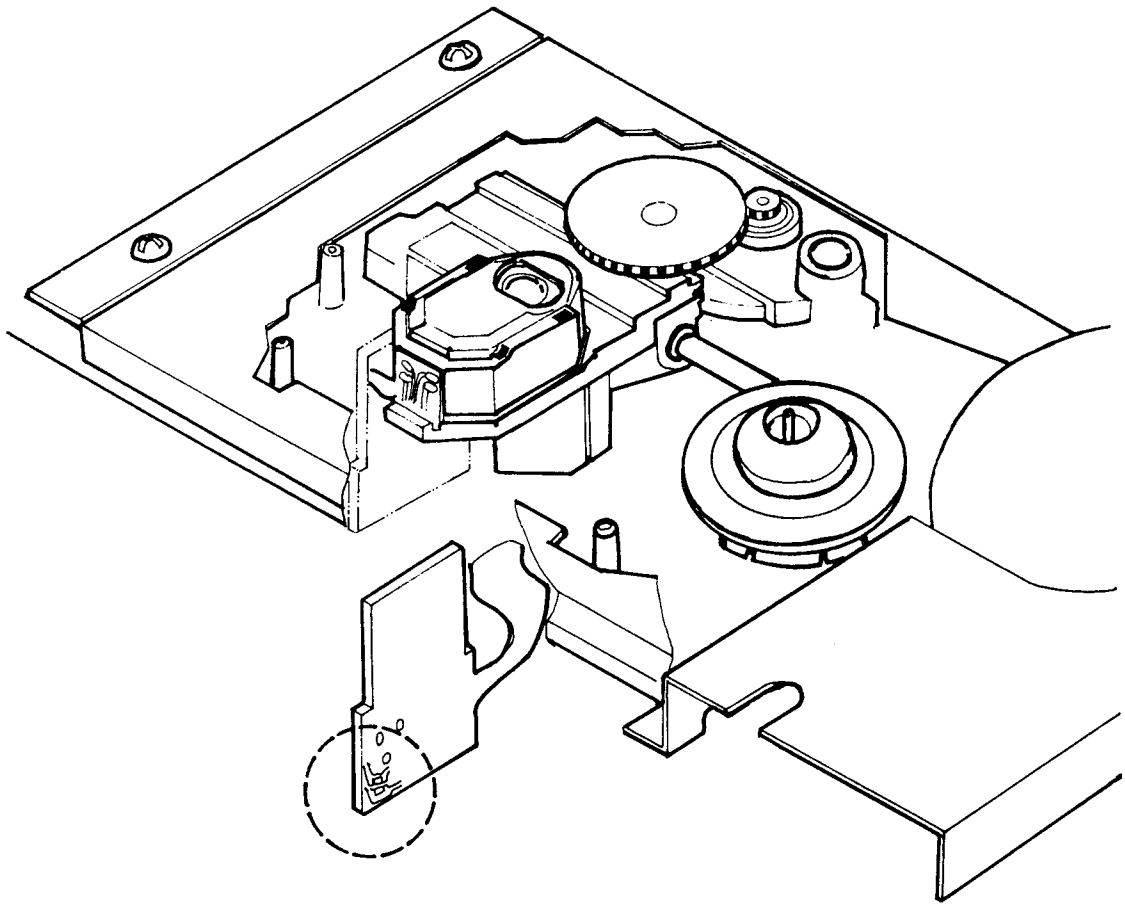
SYMPTOM	GAIN	
	focus	tracking
Time taken from stop to play is excessive, or track skip time is excessive. (normally approx. 2 sec)	low or high	low or high
Music does not start when play is pressed or track selection is made but disc rotates.		low
Drawer opens shortly after pressing PLAY.	low or high	
Intermittent sound during play or counter stops.		low
High mechanical noise from optical block during play.	high	high

!! PRECAUTIONS WHEN CHANGING LASER PICK-UP !!

When removing pick-up assembly, short circuit the PCB pattern as shown in the drawing in order to protect the pick up before removal.

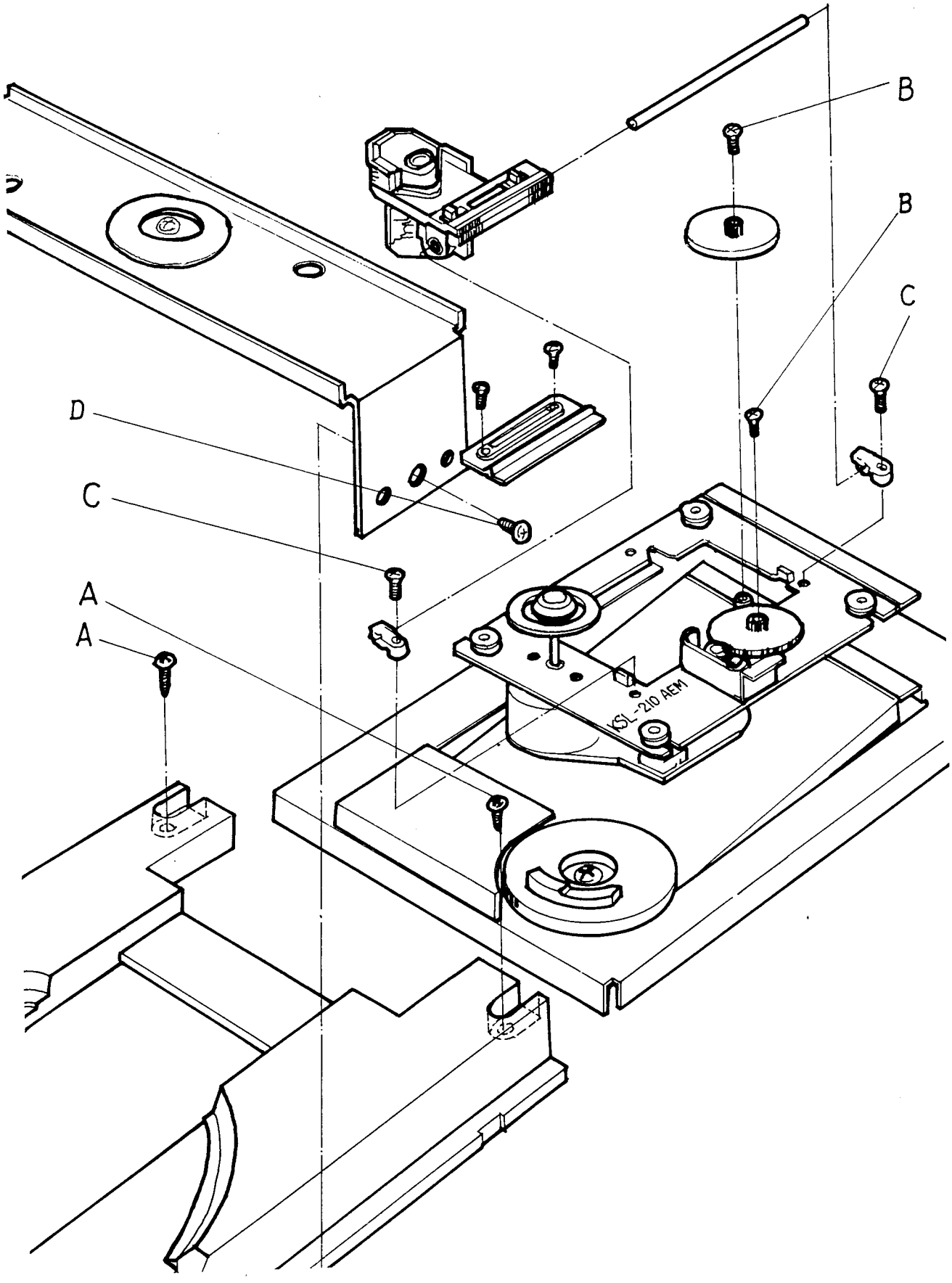
NOTE: Replacement pickup assemblies are supplied with the PCB pattern already protected.

DO NOT REMOVE THE SHORT CIRCUITS UNTIL YOU HAVE FINISHED FITTING THE PICKUP.

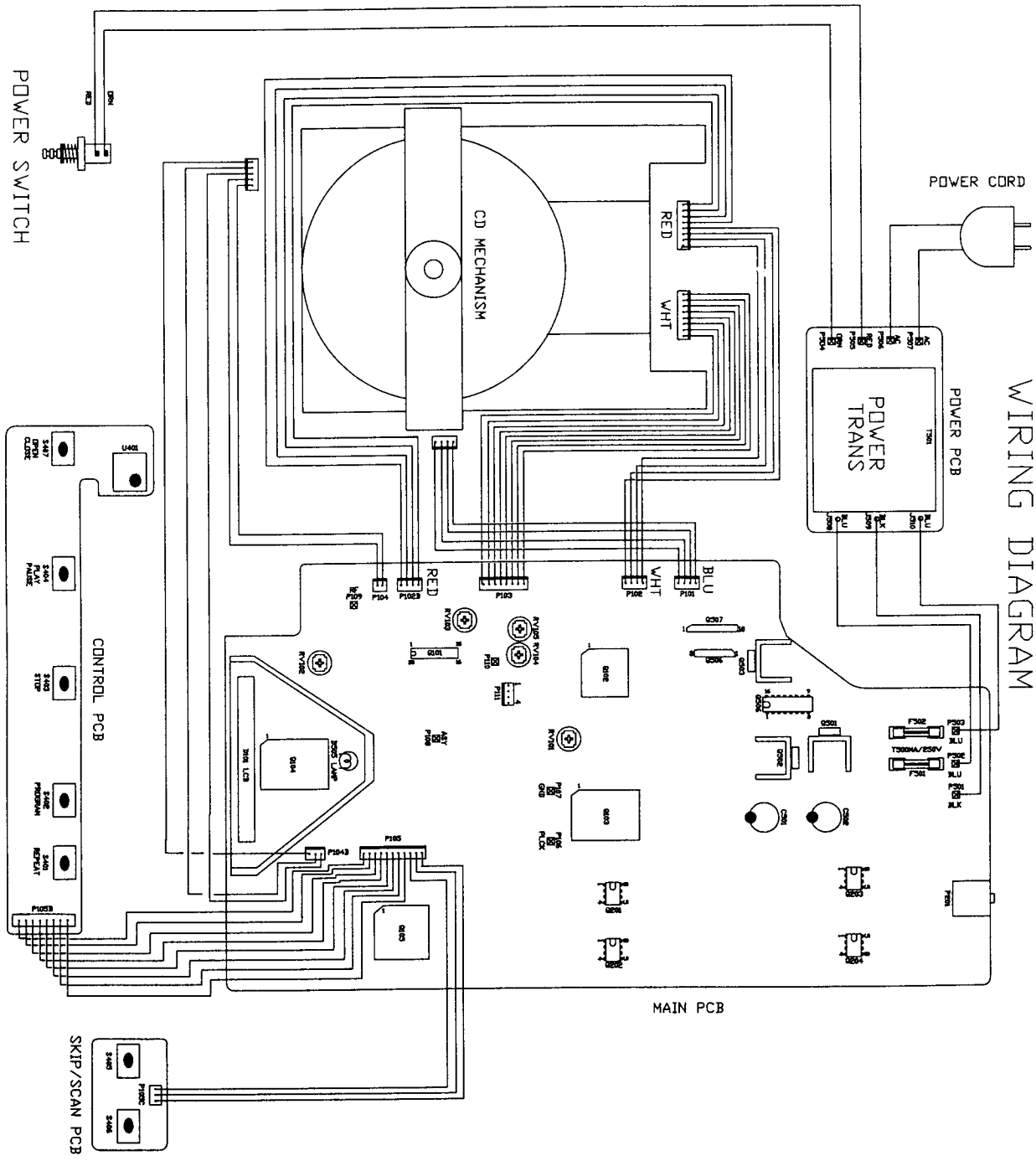


PICKUP REPLACEMENT

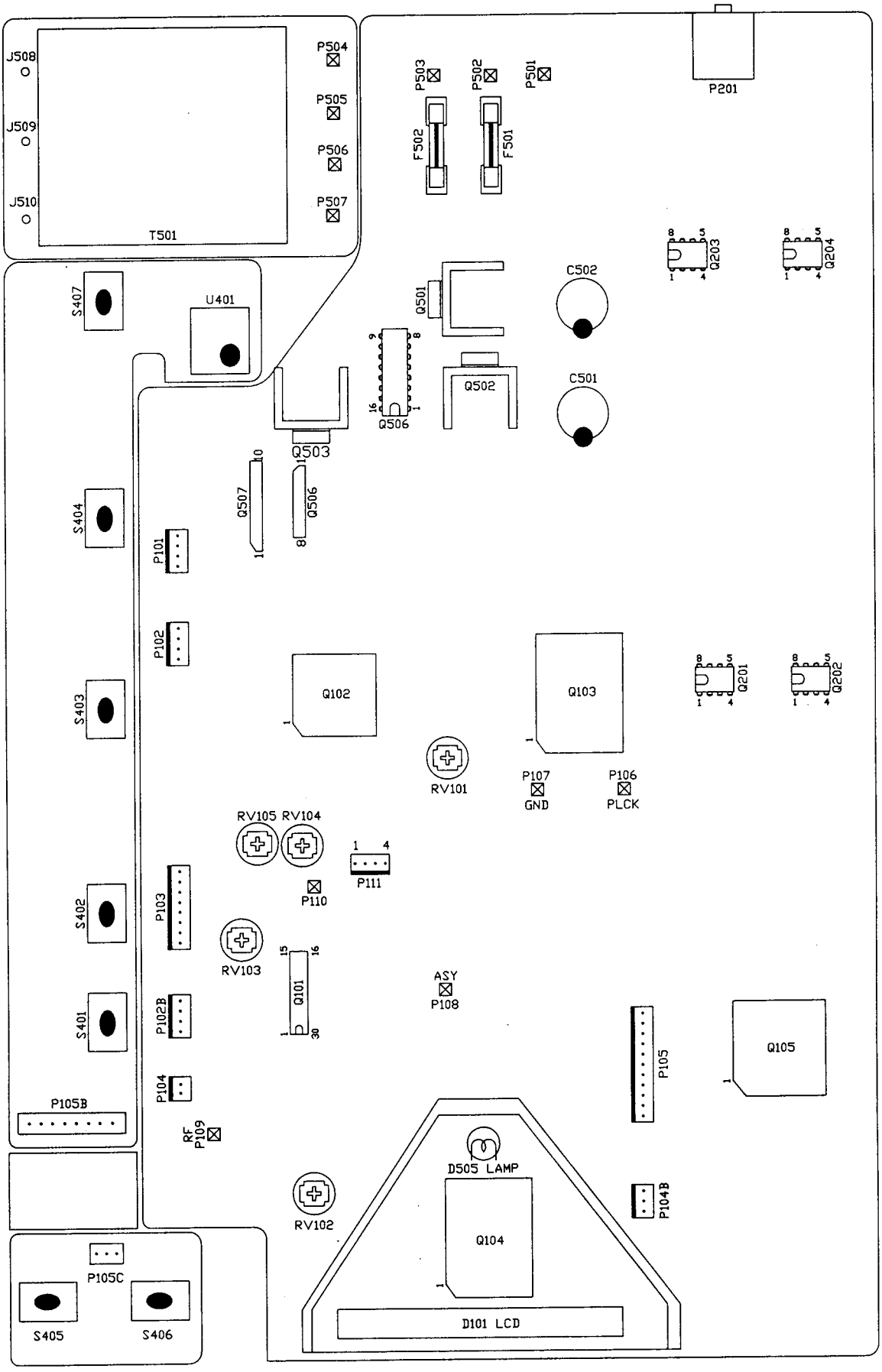
1. Push OPEN/CLOSE button to open the disc tray.
2. Remove the tray door.
3. Push OPEN/CLOSE button to close the disk tray.
4. Disconnect the AC mains supply.
5. Remove the front panel and mechanism from the chassis.
6. Before removing the mechanism note the precautions listed above.
7. Remove screws ABCD to release the pickup assembly.


B
B
C
C
D
A
A
KSL-210 AEM

WIRING DIAGRAM

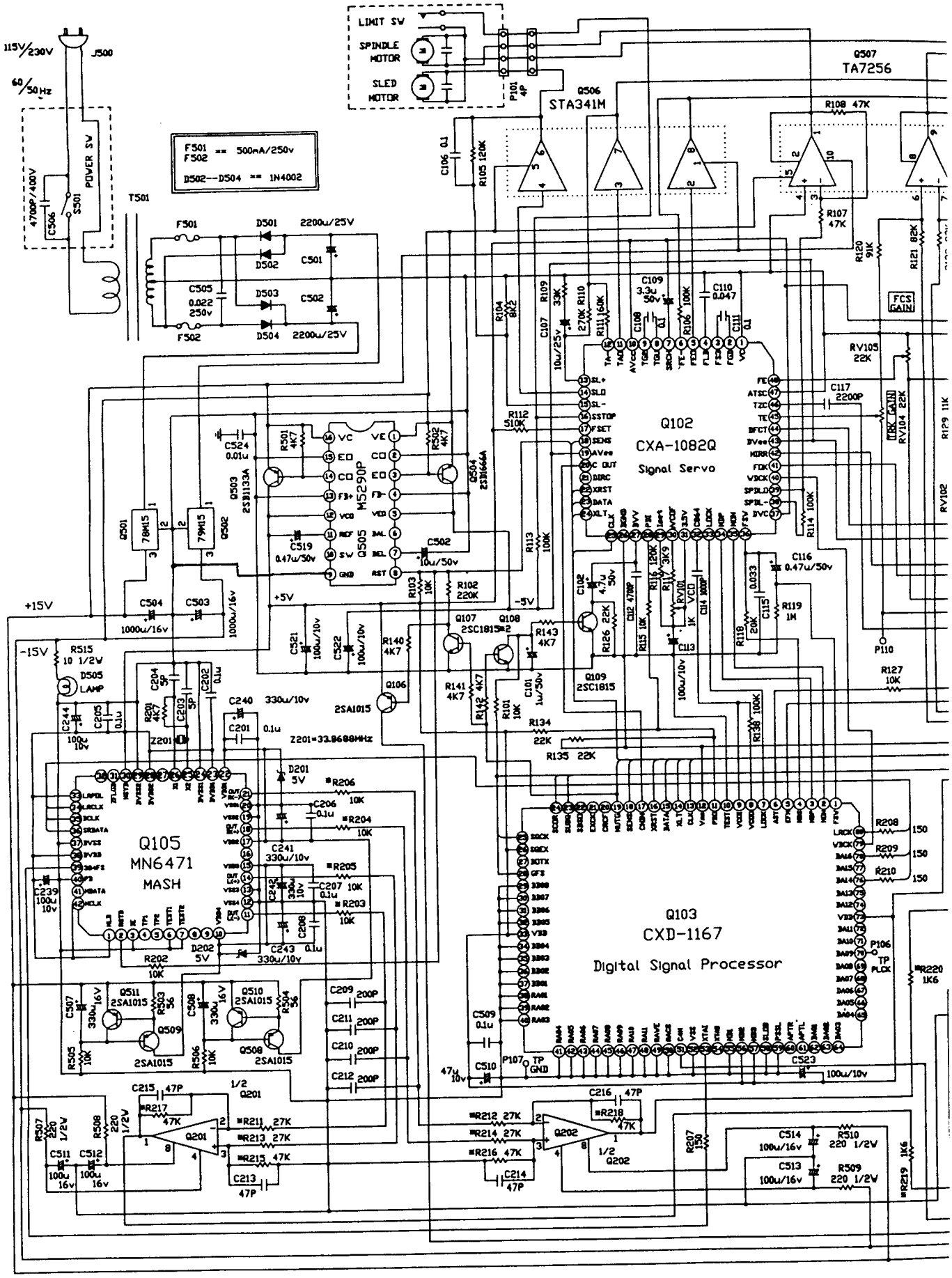


ADJUSTMENT POINTS

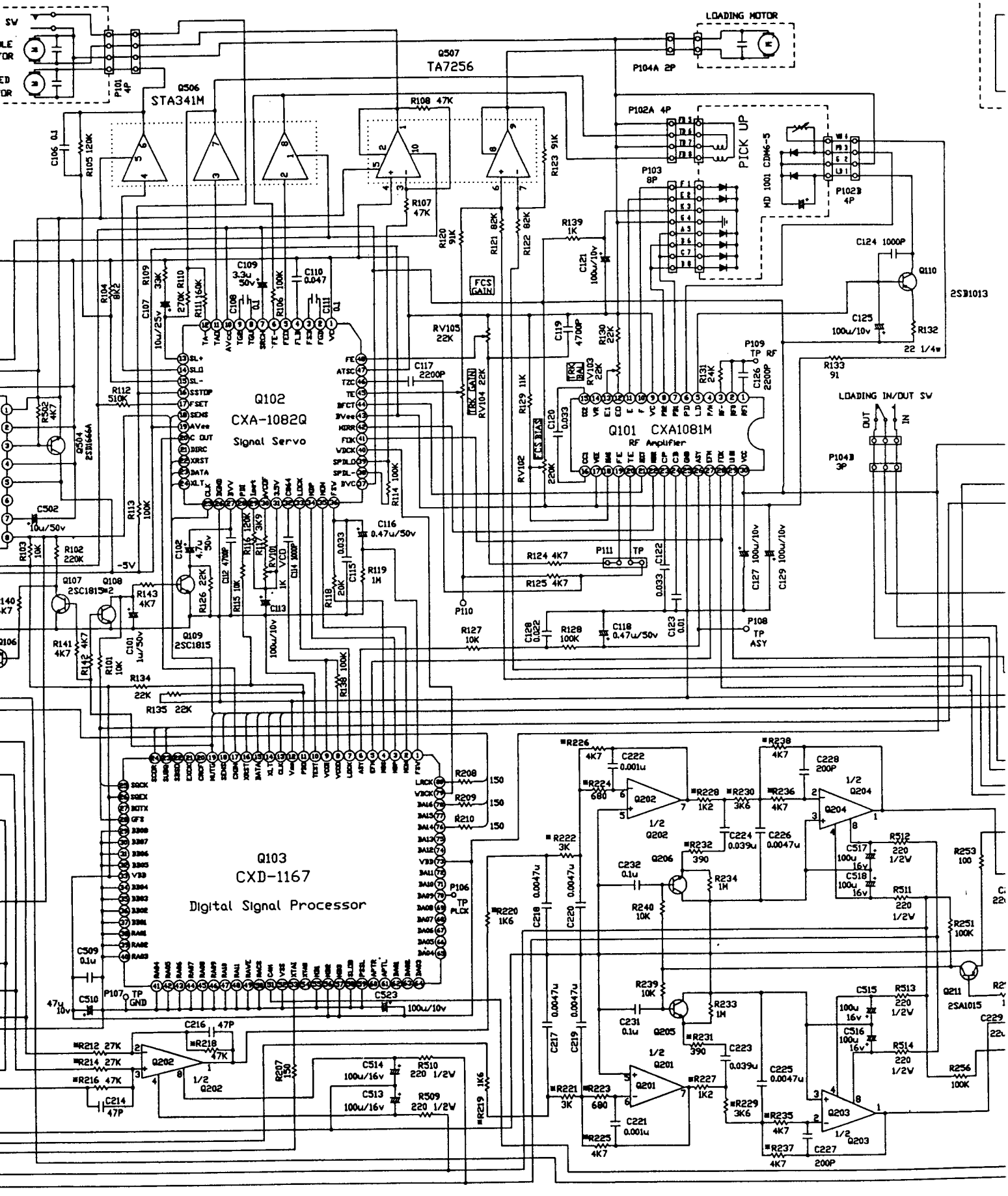


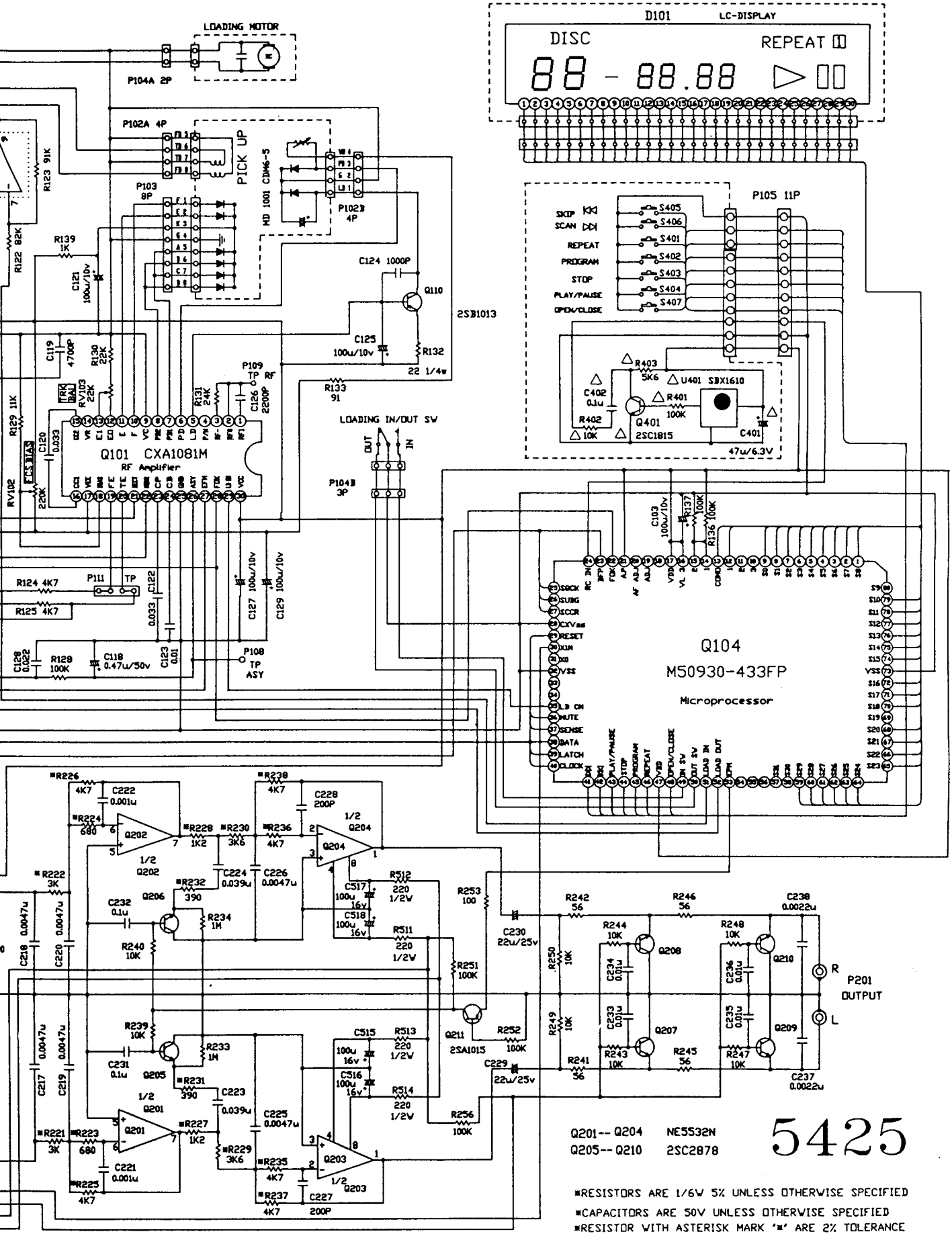
PCB ADJUSTMENT POINTS DIAGRAM

SCHEMATIC DIAGRAM



C DIAGRAM


LOADING MOTOR
P104A 2P
Q507
TA7256
Q506
STA341M
P102A 4P
PICK UP
MD 1001 CDM6-5
P103
8P
P102B
4P
R108 47K
R107 47K
R120 91K
R121 82K
R122 82K
R123 91K
R139 1K
C121 100u/10v
C124 1000P
Q110
2SB1013
C125 100u/10v
R132 22 1/4w
R133 91
P109 TP RF
C126 2200P
LOADING IN/OUT SW
OUT
IN
P104B 3P
Q102
CXA-1082Q
Signal Servo
Q101 CXA1081M
RF Amplifier
FCS GAIN
TRK GAIN
TRK BAL
FCS BIAS
RV103 22K
RV104 22K
RV102 220K
C119 4700P
C120 0.033
C117 2200P
RV105 22K
R129 11K
R130 22K
R131 24K
C502 10u/50v
R112 510K
R113 100K
R114 100K
C116 0.47u/50v
R124 4K7
R125 4K7
P111 TP
P110
P108 TP ASY
C122 0.033
C123 0.01
C127 100u/10v
C129 100u/10v
C128 0.022
R128 100K
C118 0.47u/50v
R127 10K
Q107 2SC1815
Q108
Q109 2SC1815
R143 4K7
R141 4K7
R142 4K7
C101 1u/50v
R101 10K
R102 220K
R103 10K
R134 22K
R135 22K
-5V
Q103
CXD-1167
Digital Signal Processor
P106 TP PLCK
P107 TP GND
C509 0.1u
C510 47u 10v
C523 100u/10v
R208 150
R209 150
R210 150
R220 1K6
R222 3K
R226 4K7
R224 680
C222 0.001u
Q202
R228 1K2
R230 3K6
R236 4K7
C224 0.039u
C226 0.0047u
C228 200P
Q204
R232 390
Q206
C232 0.1u
R234 1M
R240 10K
C216 0.0047u
C220 0.0047u
C217 0.0047u
C219 0.0047u
R238 4K7
R512 220 1/2W
C517 100u 16v
C518 100u 16v
R511 220 1/2W
R253 100
R251 100K
Q211 2SA1015
R239 10K
C231 0.1u
R233 1M
Q205
R231 390
C223 0.039u
R227 1K2
Q201
R221 3K
R223 680
C221 0.001u
R225 4K7
C225 0.0047u
R229 3K6
R235 4K7
R237 4K7
C227 200P
Q203
C515 100u 16v
C516 100u 16v
R513 220 1/2W
R514 220 1/2W
R256 100K
C229
C216 47P
R218 47K
R212 27K
R214 27K
R216 47K
C214 47P
R207 150
C514 100u/16v
C513 100u/16v
R510 220 1/2W
R509 220 1/2W
R219 1K6



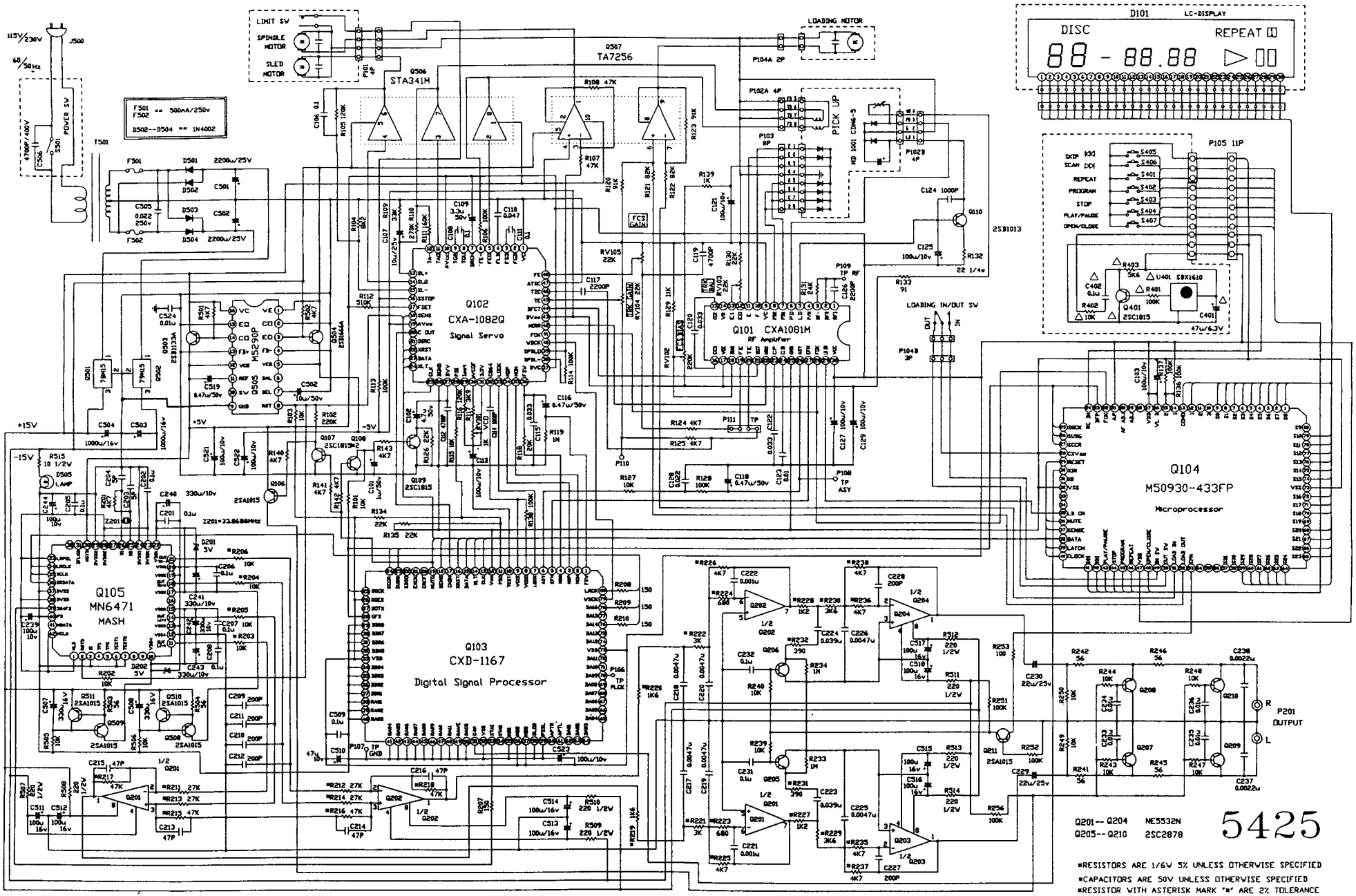
Q201-- Q204 NE5532N
Q205-- Q210 2SC2878

5425

*RESISTORS ARE 1/6W 5% UNLESS OTHERWISE SPECIFIED
*CAPACITORS ARE 50V UNLESS OTHERWISE SPECIFIED
RESISTOR WITH ASTERISK MARK '' ARE 2% TOLERANCE
*Parts marked △ are applicable only to the model 5425.

(C) NAD Electronics Ltd. 1991

SCHEMATIC DIAGRAM

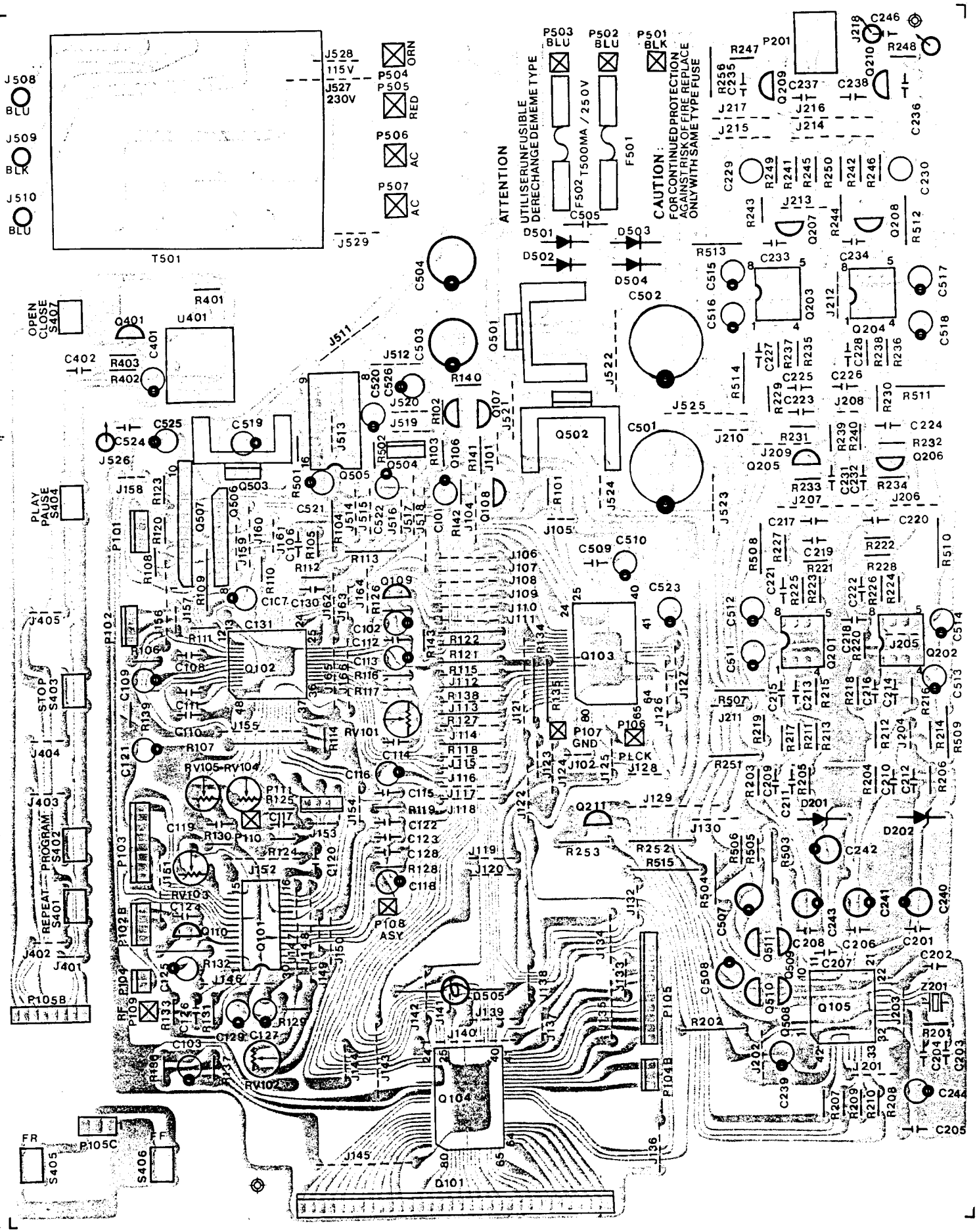


Q201-- Q204 NE5532N
Q205-- Q210 2SC2878

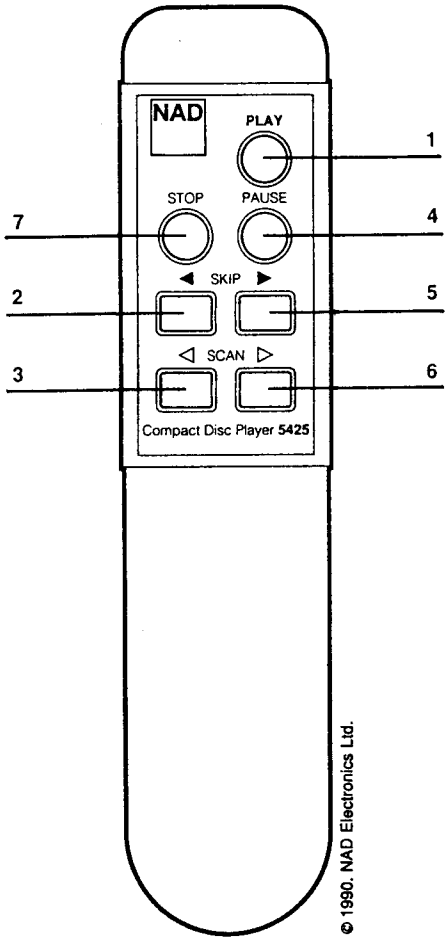
*RESISTORS ARE 1/6W 5% UNLESS OTHERVISE SPECIFIED
*CAPACITORS ARE 50V UNLESS OTHERVISE SPECIFIED
RESISTOR WITH ASTERISK MARK '' ARE 2% TOLERANCE
*Parts marked△ are applicable only to the model 5425.

(C) NAD Electronics Ltd. 1991

PCB LAYOUT (PARTS SIDE)

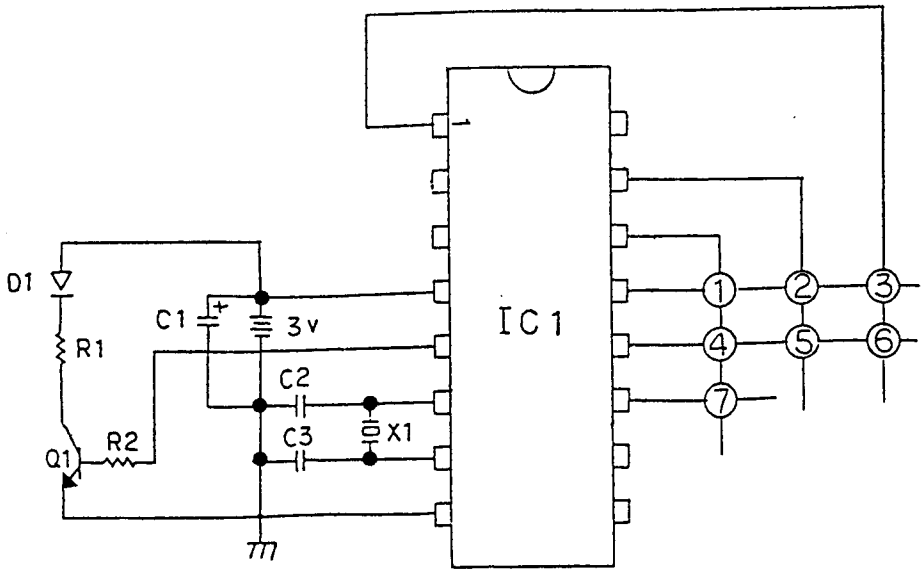


REMOTE CONTROL
(5425 Only)

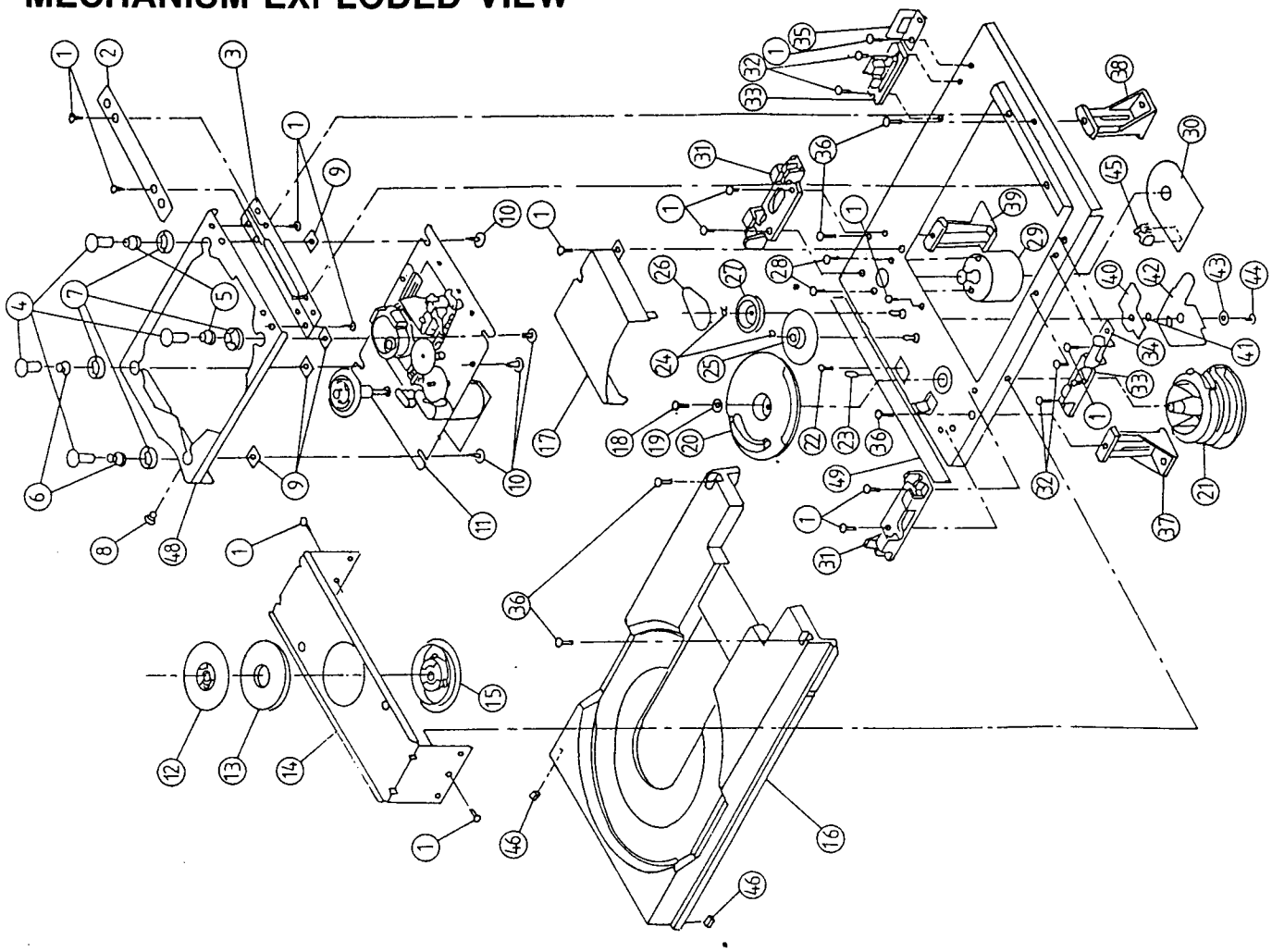


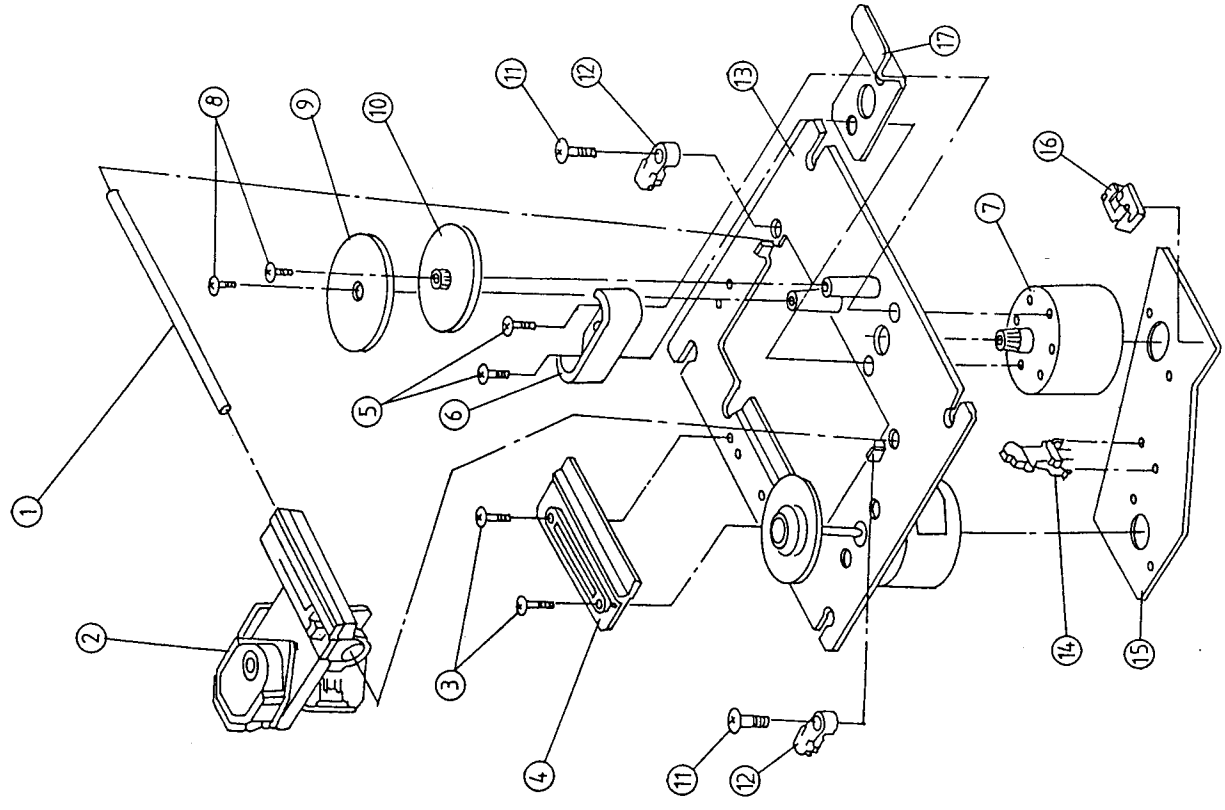
KEY no.	Function
1.	play
2.	<< skip
3.	<< scan
4.	pause
5.	>> skip
6.	>> scan
7.	stop

CIRCUIT REF.	DESCRIPTION
IC 1	CX-23042-10
Q1	2SC2673
D1	IN66A
X1	480 KHz
C1	470 uF
C2/C3	100 pF
R1	1 Ohm
R2	100 Ohm



MECHANISM EXPLODED VIEW





MECHANISM EXPLODED PARTS LIST

KSL-210 AEM EXPLODED PARTS LIST

ITEM	PARTS NUMBER	PARTS NAME	Q'TY
1	7-685-862-(01)	SCREW	14
2	2-642-170-(01)	HINGE	1
3	2-642-164-(01)	HINGE	1
4	2-642-160-(01)	SCREW	4
5	2-642-137-(02)	SPRING	2
6	2-642-139-(02)	SPRING	2
7	2-642-158-(01)	INSULATOR	4
8	2-642-169-(02)	ROLLER	1
9	2-642-159-(01)	PLATE	4
10	2-642-142-(01)	SCOKET SCREW	4
11	8-848-184-(01)	KSL-210AEM	1
12	2-642-175-(01)	CHUCKING YOKE	1
13	1-452-493-(21)	MAGNENT	1
14	2-642-165-(01)	CHUCK CHASSIS	1
15	2-642-181-(02)	CHUCK PULLEY	1
16	2-642-15	TRAY	1
17	2-642-149-(02)	GEAR COVER	1
18	7-685-535-(19)	SCREW	1
19	4-812-554-(01)	WASHER	1
20	2-642-154-(03)	DRIVE GEAR	1
21	2-642-153-(01)	CONTROL CAM	1
22	7-685-851-(01)	SCREW	1
23	1-752-052-(11)	LEAF SWITCH	1
24	3-558-708-(21)	WASHER	2
25	2-642-148-(01)	CENTER GEAR	1
26	3-653-387-(01)	BELT	1
27	4-913-781-(01)	LOADING PULLEY	1
28	7-621-755-(00)	SCREW	2
29	X-2641-336-(1)	MOTOR ASS'Y	1
30	1-624-793-(21)	MOTOR PCB	1
31	2-642-161-(01)	TRAY HOLDER	2
32	7-685-781-(01)	SCREW	4
33	2-642-162-(03)	BACK TRAY HOLDER	2
34	2-642-146-(02)	TRAY GUIDE(R)	1
35	2-642-147-(02)	TRAY GUIDE(L)	1
36	7-685-547-(19)	SCREW	5
37	2-642-510-(01)	BOSS (R)	1
38	2-642-512-(01)	BOSS(REAR)	1
39	2-642-511-(01)	BOSS(L)	1
40	2-642-173-(01)	LINK PLATE	1
41	2-642-133-(02)	BOSS	1
42	X-2642-109-(1)	STOPPER LINK ASS'Y	1
43	2-642-172-(01)	SPACER WASHER	1
44	7-682-902-(31)	SCREW	1
45	1-564-721-(11)	CONNECTOR PIN	1
46	2-642-125-(01)	DAMPER	2
47	X-2642-106-(2)	MAIN CHASSIS	1
48	X-2642-105-(2)	CHASSIS	1
49	2-642-157-(03)	FRONT TAPE	1

5245 LASER UNIT REPLACEMENT

ITEM	PARTS NUMBER	PARTS NAME	Q'TY
1	4-910-431-(02)	SLIDE AXIS	1
2	8-848-127-(31)	LASER UNIT	1
3	2-641-386-(01)	TAPPING SCREW	2
4	2-641-443-(02)	SLIDE HOLDER	1
5	7-261-255-(35)	SCREW	2
6	2-641-434-(01)	GEAR COVER	1
7	X-2641-358-(1)	FEED MOTOR ASS'Y	1
8	3-303-809-(31)	SCREW	2
9	2-641-404-(02)	GEAR A	1
10	2-642-403-(06)	GEAR B	1
11	2-641-447-(01)	SCREW	2
12	2-641-448-(02)	SHAFT CLAMP	2
13	X-2641-356-(1)	SPINDLE MOTOR ASS'Y	1
14	1-572-053-(12)	LEAF SWITCH	1
15	1-628-263-(11)	MOTOR PCB	1
16	1-564-720-(11)	CONNECTOR PIN	1
17	2-641-371-(01)	STOPPER	1

5425/5420 PARTS LIST

SYMBOL NO	5425/20 QT'Y		I/D	PART NO.	DESCRIPTION	SPECIFICATION
1P08	1	1		5535122533	OWNERS MANUAL	NAD-5425
P000	1	0		5552000600	R/C TRANSMITTER	CR07MC0001-TT
P001	2	0		5553300011	BATTERY	1.5V UM-4
#########						
	1	0		5090304009	CHASSIS ASS'Y	NAD-5425
	0	1		5090304011	CHASSIS ASS'Y	NAD-5420
2C05	1	1	B	5535450300	BS CORD LABEL	NAD-SERIES
3F01	4	4		5540542400	BUTTON	NAD-5425
3F02	1	1		5540534410	KNOB PUSH (GREEN)	NAD-7220/3220
3F03	1	1		5541542500	BUTTON-PLAY	NAD-5425
3F04	1	1		5541534200	ROCKER BUTTON	NAD-710 ABS
4D01	1	1		5557101900	CD-MECHANISM	KSL-150AEM
4D01M	3	3		7136160652	SCREW TAPPING	M3.0x06 TS
4D01N	1	1		7033161156	SEREW	M3.0x08
5C01	1	1		5547136800	CHASSIS	
5C02	1	1		5556200810	LUG	4.1mm
5C04	1	1		5547040900	PCB BRACKET	
5C04M	1	1		7001170616	SCREW	M3.0x06
5C04N	1	1		7000305012	SCREW BTBW	M3x08
5T01	1	1		5541002130	TOP COVER	NAD-5425
5T01M	4	4		7190550003	SCREW ISO PPW BLK	M4.0x06
6C01	4	4		5547802110	FOOT	NAD-SERIES
6C01M	4	4		7000305012	SCREW BTBW	M3x08
6C02	1	1		5547501200	BUSHING POWER CORD	SR-4P-4 & B-7
6C03	2	2		5547530430	PCB SUPPORT	SCB-24
6F01	1	1		5541214600	FRONT PANEL	NAD-5425
6F01M	8	8		7033161156	SCREW	M3.0x08
6F01N	7	7		7034161156	SCREW TAPPING	M3.0x08
6F02	1	0		5542230000	WINDOW	NAD-5425
6F02	0	1		5542230010	WINDOW	NAD-5420
6F03	1	0		5542230100	COVER	NAD-5425
6F03	0	1		5542230110	COVER	NAD-5420
C506	1	1		5230102701	CAP. CERAMIC	4700PFM
J500	1	1	A	5556702121	POWER CORD W/PLG	41/0.1x2Cx2.1M S
J500	1	1	A1	5556702121	POWER CORD W/PLG	41/0.1x2Cx2.1M SPE-2
J500	1	1	B	5556701310	POWER CORD BS	0.75MM2 24/0.20x2C
J500	1	1	B1	5556702011	POWER CORD W/PLG	42/0.15x2Cx1.8M
J500	1	1	C	5556700131	POWER CORD W/PLG	42/0.15x2Cx1.8M
J500	1	1	C1	5556700131	POWER CORD W/PLG	42/0.15x2Cx1.8M
S501	1	1		5554436110	POWER SWITCH	SDDLB1017U-TT
T501	1	1		5561320100	POWER TRANSFORMER	115/230V
T501M	2	2		7134250652	SCREW PZS S TAPE	M4.0x06
T501N	2	2		5542805500	RETAINER SPEAKER	
* U401	1	0		5550000300	INFRA R/C RECEIVER	SBX-161C-51
#########						
5P01	2	2		5545306900	HEAT SINK (S)	NAD-710
5P01M	3	3		7033161156	SCREW BRB C RUD	M3.0x08
5P02	1	1		5545309400	HEAT SINK	NAD-5425
6P01	1	1		5542230300	LAMP COVER	NAD-5425
6P01M	2	2		7033161156	SCREW BRB C RUD	M3.0x08
B101	1	1		5553133500	MAIN PCB	NAD-5425
C101	1	1		5213601012	CAP. EL.	1uFM ±20% 50V
C102	1	1		5213647991	CAP. EL.	4.7uFMT ±20% 50V
C103	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C106	1	1		5222110491	CAP. POLY.	0.1MFJT ±5% 50V
C107	1	1		5213610091	CAP. EL.	10uFMT ±20% 50V
C108	1	1		5222110491	CAP. POLY.	0.1MFJT ±5% 50V
C109	1	1		5213633991	CAP. EL.	3.3uFMT ±20% 50V
C110	1	1		5222147391	CAP. POLY.	47000PFJT ±5% 50V
C111	1	1		5222110491	CAP. POLY.	0.1MFJT ±5% 50V
C112	1	1		5231547201	CAP. CER.	0.047uFM ±20% 50V
C113	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V

Parts marked * are applicable only to the model 5425.

C114	1	1		5231510291	CAP. CER.	1000PFMT ±20% 50V
C115	1	1		5222133391	CAP. POLY.	33000PFJT ±5% 50V
C116	1	1		5213647891	CAP. EL.	0.47uFMT ±20% 50V
C117	1	1		5231522291	CAP. CER.	2200PFMT ±20% 50V
C118	1	1		5213647812	CAP. EL.	0.47uFM ±20% 50V
C119	1	1		5231547291	CAP. CER.	4700PFMT ±20% 50V
C120	1	1		5222133391	CAP. POLY.	33000PFJT ±5% 50V
C121	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C122	1	1		5222133391	CAP. POLY.	33000PFJT ±5% 50V
C123	1	1		5231810391	CAP. CER.	0.01uFZT +80-20% 50V
C124	1	1		5231510291	CAP. CER.	1000PFMT ±20% 50V
C125	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C126	1	1		5231522291	CAP. CER.	2200PFMT ±20% 50V
C127	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C128	1	1		5222122391	CAP. POLY.	22000PFJT ±5% 50V
C129	1	1		5213210112	CAP. EL.	100uFM ±20% 10V
C201,C202	2	2		5237310491	CAP. SEMI.	0.1uFZT +80-20% 16V
C203,C204	2	2		5247105091	CAP. CER.	5.0PFCT ±0.25PF 50V
C205-C208	4	4		5237310491	CAP. SEMI.	0.1uFZT +80-20% 16V
C209-C212	4	4		5226120100	CAP. POLY.	200PJF ±5% 50V
C213-C216	4	4		5247047091	CAP. CER.	47PFJT ±5% 50V
C217-C220	4	4		5222147291	CAP. POLY.	4700PFJT ±5% 50V
C221,C222	2	2		5222110291	CAP. POLY.	1000PFJT ±5% 50V
C223,C224	2	2		5222139391	CAP. POLY.	39000PFJT ±5% 50V
C225,C226	2	2		5222147291	CAP. POLY.	4700PFJT ±5% 50V
C227,C228	2	2		5226120100	CAP. POLY.	200PFJ ±5% 50V
C229,C230	2	2		5210501891	CAP. EL.	22uFMT ±20% 25V
C231,C232	2	2		5237310491	CAP. SEMI.	0.1uFZT +80-20% 16V
C233-C235	3	3		5222110391	CAP. POLY.	10000PFJT ±5% 50V
C236	1	1		5222110301	CAP. POLY	10000PFJ ±5% 50V
C237,C238	2	2		5222122291	CAP. POLY.	2200PFJT ±5% 50V
C239	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C240-C243	4	4		5213233112	CAP. EL.	330uFM ±20% 10V
C244	1	1		5213210191	CAP. EL.	100uFMT ±20% 10V
C501,C502	2	2		5213422212	CAP. EL.	2200uFM ±20% 25V
C503,C504	2	2		5213310212	CAP. EL.	1000uFM ±20% 16V
C505	1	1		5272222301	CAP. METAL P.E.	22000PFK ±10% 250V
C507,C508	2	2		5213333112	CAP. EL.	330uFM ±20% 10V
C509	1	1		5237310491	CAP. SEMI.	0.1uFZT +80-20% 16V
C510	1	1		5213247012	CAP. EL.	47uFM ±20% 10V
C511-C518	8	8		5213310191	CAP. EL.	100uFMT ±20% 16V
C519	1	1		5213647891	CAP. EL.	0.47uFMT ±20% 50V
C520	1	1		5213610091	CAP. EL.	10uFMT ±20% 50V
C521-C523	3	3		5213210191	CAP. EL.	100uFMT ±20% 10V
C524	1	1		5231810391	CAP. CER.	0.01uFZT +80-20% 50V
D101	1	1		6618001600	LCD	HLC9832-01-2213 NEGATIVE
D201,D202	2	2		6615009753	DIODE, ZENER	HZ-5C-2 5-5.2V
D501-D504	4	4		6611007230	DIODE,RETIFIER	1N4002 100V 1.0A
D505	1	1		5551102700	LAMP	15V 60MA
F501	1	1	A	5554306501	FUSE UL/CSA 5.2x20	250V 500MA
F501	1	1	A1	5554306501	FUSE UL/CSA 5.2x20	250V 500MA
F501	1	1	B	5554306500	FUSE 5.2x20	250V 500MA T51
F501	1	1	B1	5554306500	FUSE 5.2x20	250V 500MA T51
F501	1	1	C	5554306500	FUSE 5.2x20	250V 500MA T51
F501	1	1	C1	5554306500	FUSE 5.2x20	250V 500MA T51
F502	1	1	A	5554306501	FUSE UL/CSA 5.2x20	250V 500MA
F502	1	1	A1	5554306501	FUSE UL/CSA 5.2x20	250V 500MA
F502	1	1	B	5554306500	FUSE 5.2x20	250V 500MA T51
F502	1	1	B1	5554306500	FUSE 5.2x20	250V 500MA T51
F502	1	1	C	5554306500	FUSE 5.2x20	250V 500MA T51
F502	1	1	C1	5554306500	FUSE 5.2x20	250V 500MA T51
P201	1	1		5556204700	2P SIGNAL JACK	12-2123
P511-P514	4	4		5547032210	FUSE CLIP (5.2)	CQ-203S
Q101	1	1		6644005700	IC LINEAR RF AMP	CXA1081M
Q102	1	1		6644005800	IC SERVO PROCESS	CXA1082BQ
Q103	1	1		6647003700	IC LSI DC DSP	CXD1167Q
Q104	1	1		6647003600	IC LSI U CMOS	M50930-433FP 8BIT
Q105	1	1		6649000300	IC D/A CPNVERTER	MN6471M 18BIT

Q106	1	1	6623002050	TR, PNP HF	2SA1015-Y	TPE2	TAPING
Q107-Q109	3	3	6621015332	TR, NPN HF	2SC1815-Y	TPE2	
Q110	1	1	6624000900	TR, NPN LF	SB1013		
Q201-Q204	4	4	6644007100	IC LINEAR DUAL OP	NE5532N		
Q205-Q210	6	6	6621018700	TR. NPN HF	2SC2878-A		
Q211	1	1	6623002050	TR. PNP HF	2SA1015-Y	TPE2	TAPING
Q501	1	1	6640007501	IC VOLTAGE REGULATOR	LM7815CT	15V	TO-220 3P
Q502	1	1	6640006801	IC VOLTAGE REGULATOR	LM7915CT	15V	TO-220 3P
Q503	1	1	6624000700	TR. PNP LF	2SB1133Q	VCBO=60	PC=2W
Q504	1	1	6622001300	TR. NPN LF	2SD1666	VCBO=60	PC=2W
Q505	1	1	6640004900	IC VOLTAGE REGULATOR	M5290P±5V	W/RESET	
Q506	1	1	6642002100	IC TRANSISTOR ARRAY	STA341M		
Q507	1	1	6644006000	IC LINEAR DUAL OP	TA7256P		
Q508,Q509	2	2	6623002050	TR. PNP HF	2SA1015-Y		
Q510,Q511	2	2	6623002020	TR. PNP HF	2SA1015-Y		
R101	1	1	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R102	1	1	5142122490	RES., CARBON FILM	220KJB	±5%	1/6W
R103	1	1	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R104	1	1	5142882290	RES., CARBON FILM	8.2KJB	±5%	1/4W
R105	1	1	5142112490	RES., CARBON FILM	120KJB	±5%	1/6W
R106	1	1	5142110490	RES., CARBON FILM	100KJB	±5%	1/6W
R107	1	1	5142847390	RES., CARBON FILM	47KJB	±5%	1/4W
R108	1	1	5142147390	RES., CARBON FILM	47KJB	±5%	1/6W
R109	1	1	5142833390	RES., CARBON FILM	33KJB	±5%	1/4W
R110	1	1	5142127490	RES., CARBON FILM	270KJB	±5%	1/6W
R111	1	1	5142116490	RES., CARBON FILM	160KJB	±5%	1/6W
R112	1	1	5142151490	RES., CARBON FILM	510KJB	±5%	1/6W
R113	1	1	5142810490	RES., CARBON FILM	100KJB	±5%	1/4W
R114	1	1	5142110490	RES., CARBON FILM	100KJB	±5%	1/6W
R115	1	1	5142810390	RES., CARBON FILM	10KJB	±5%	1/4W
R116	1	1	5142112490	RES., CARBON FILM	120KJB	±5%	1/6W
R117	1	1	5142139290	RES., CARBON FILM	3.9KJB	±5%	1/6W
R118	1	1	5142820390	RES., CARBON FILM	20KJB	±5%	1/4W
R119	1	1	5142110590	RES., CARBON FILM	1MJB	±5%	1/6W
R120	1	1	5142191390	RES., CARBON FILM	91KJB	±5%	1/6W
R121,R122	2	2	5142882390	RES., CARBON FILM	82KJB	±5%	1/4W
R123	1	1	5142191390	RES., CARBON FILM	91KJB	±5%	1/6W
R124	1	1	5142147290	RES., CARBON FILM	4.7KJB	±5%	1/6W
R125	1	1	5142147201	RES., CARBON FILM	4.7KJC	±5%	1/6W
R126	1	1	5142122390	RES., CARBON FILM	22KJB	±5%	1/6W
R127	1	1	5142810390	RES., CARBON FILM	10KJB	±5%	1/4W
R128	1	1	5142110490	RES., CARBON FILM	100KJB	±5%	1/6W
R129	1	1	5142111390	RES., CARBON FILM	11KJB	±5%	1/6W
R130	1	1	5142122390	RES., CARBON FILM	22KJB	±5%	1/6W
R131	1	1	5142124390	RES., CARBON FILM	24KJB	±5%	1/6W
R132	1	1	5142822090	RES., CARBON FILM	22JB	±5%	1/4W
R133	1	1	5142191090	RES., CARBON FILM	91JB	±5%	1/6W
R134	1	1	5142822300	RES., CARBON FILM	22KJ	±5%	1/4W
R135	1	1	5142822390	RES., CARBON FILM	22KJB	±5%	1/4W
R136,R137	2	2	5142110490	RES., CARBON FILM	100KJB	±5%	1/6W
R138	1	1	5142810490	RES., CARBON FILM	100KJB	±5%	1/4W
R139	1	1	5142110290	RES., CARBON FILM	1KJB	±5%	1/6W
R140-R143	4	4	5142147290	RES., CARBON FILM	4.7KJB	±5%	1/6W
R201	1	1	5142147290	RES., CARBON FILM	4.7KJB	±5%	1/6W
R202	1	1	5142810390	RES., CARBON FILM	10KJB	±5%	1/4W
R203-R206	4	4	5141110390	RES., CARBON FILM	10KGB	±2%	1/6W
R207-R210	4	4	5142115190	RES., CARBON FILM	150JB	±5%	1/6W
R211-R214	4	4	5141127390	RES., CARBON FILM	27KGB	±2%	1/6W
R215-R218	4	4	5141147390	RES., CARBON FILM	47KGB	±2%	1/6W
R219,R220	2	2	5141116290	RES., CARBON FILM	1.6KGB	±2%	1/6W
R221,R222	2	2	5141130290	RES., CARBON FILM	3KGB	±2%	1/6W
R223,R224	2	2	5141168190	RES., CARBON FILM	680GB	±2%	1/6W
R225,R226	2	2	5141147290	RES., CARBON FILM	4.7KGB	±2%	1/6W
R227,R228	2	2	5141112290	RES., CARBON FILM	1.2KGB	±2%	1/6W
R229,R230	2	2	5141136290	RES., CARBON FILM	3.6KGB	±2%	1/6W
R231,R232	2	2	5141139190	RES., CARBON FILM	390GB	±2%	1/6W
R233,R234	2	2	5142110590	RES., CARBON FILM	1MJB	±5%	1/6W
R235-R238	4	4	5141147290	RES., CARBON FILM	4.7KGB	±2%	1/6W

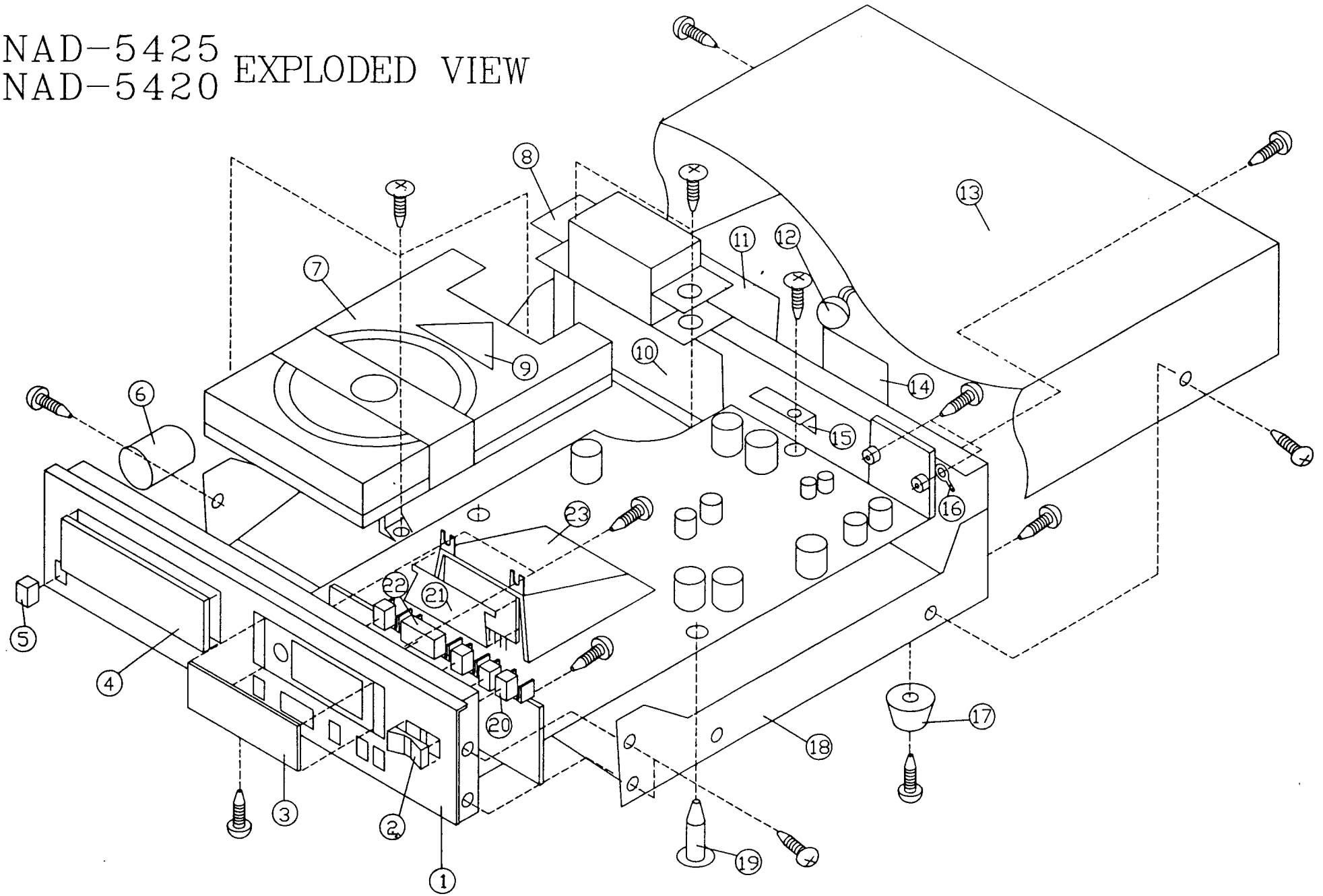
R239,R240	2	2	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R241,R242	2	2	5142156090	RES., CARBON FILM	56JB	±5%	1/6W
R243,R244	2	2	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R245,R246	2	2	5142156090	RES., CARBON FILM	56JB	±5%	1/6W
R247	1	1	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R248	1	1	5142110301	RES., CARBON FILM	10KJC	±5%	1/6W
R249,R250	2	2	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R251,R252	2	2	5142810490	RES., CARBON FILM	100KJB	±5%	1/4W
R253	1	1	5142810190	RES., CARBON FILM	100JB	±5%	1/4W
R256	1	1	5142810490	RES., CARBON FILM	100KJB	±5%	1/4W
R501,R502	2	2	5142147290	RES., CARBON FILM	4.7KJB	±5%	1/6W
R503,R504	2	2	5142856090	RES., CARBON FILM	56JB	±5%	1/4W
R505,R506	2	2	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
R507-R514	8	8	5130222107	RES., METAL OXIDE	220JL	±5%	1/2W
R515	1	1	5130210007	RES., METAL OXIDE	10JL	±5%	1/2W
RV101	1	1	5162161020	VR. PN06FB102AR	1KM	±20%	
RV102	1	1	5162163120	VR. PN06FB224AR	220KM	±20%	
RV103-105	3	3	5162162220	VR. PN06FB223AR	22KM	±20%	
Z201	1	1	6699004100	CRYSTAL UNIT	33.8688MHz CL:30PF±30PPM		
* C401	1	0	5293147091	CAP. EL. (MINI)	47uFMT	±20%	6.3V
* C402	1	0	5237310491	CAP. SEMI.	0.1uFZT	+80-20%	16V
* Q401	1	0	6621015332	TR., NPN HF	2SC1815-Y TPE2		
* R401	1	0	5142110490	RES., CARBON FILM	100KJB	±5%	1/6W
* R402	1	0	5142110390	RES., CARBON FILM	10KJB	±5%	1/6W
* R403	1	0	5142156290	RES., CARBON FILM	5.6KJB	±5%	1/6W
S401-S404	4	4	5054512940	SWITCH,TACH DC 12V	50mA		
S407	1	1	5054512940	SWITCH,TACH DC 12V	50mA		
S405,S406	2	2	5054512940	SWITCH,TACH DC 12V	50 mA		

Parts marked * are applicable only to the model 5425.

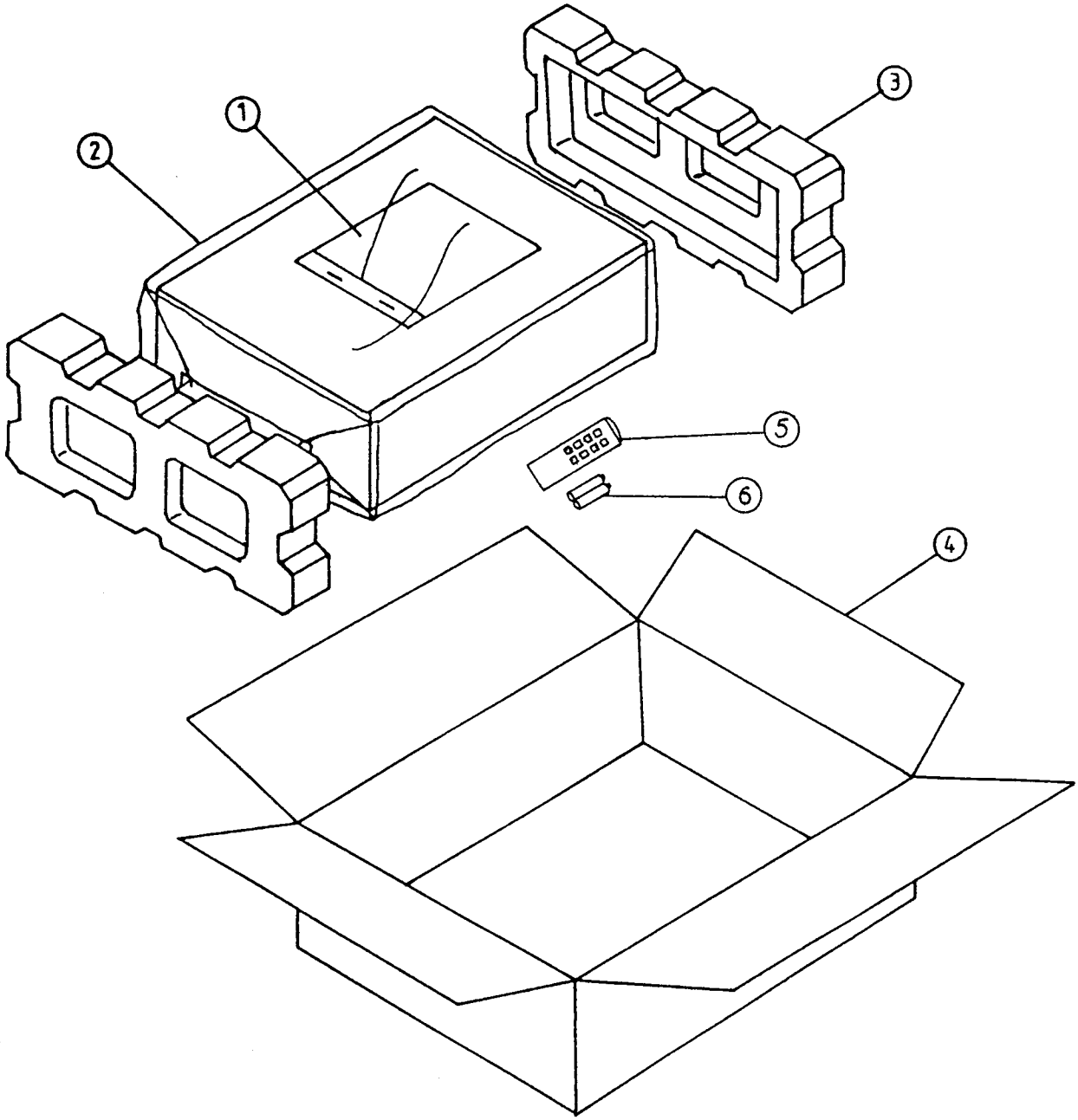
NAD 5425/5420 EXPLODED PARTS LIST

ITEM.	PARTS NAME	PARTS NUMBER
1	FRONT PANEL	5541214600
2	BUTTON,ROCKER	5541534200
3	WINDOW/5425	5542230000
	WINDOW/5420	5542230010
4	COVER DEC./5425	5542230100
	COVER DEC./5420	5542230110
5	BUTTON,PW.	5541534410
6	TUBE,INSULATE	5547528640
7	MECHANISM,CD.	5547101900
8	HOLDER	5542805500
9	LABEL,LASER	5535450900
10	LABEL,CAUTION	5535451000
11	LABEL,BACK/5425 120V	5535450600
	LABEL,BACK/5425 220V	5535450601
	LABEL,BACK/5425 240V	5535450602
	LABEL,BACK/5420 120V	5535450603
	LABEL,BACK/5420 220V	5535450604
	LABEL,BACK/5420 240V	5535450605
12	CORD,PW.	5547501200
13	COVER, TOP	5541002130
14	LABEL,CLASS 1 LASER	5535450855
15	BRACKET,PCB	5547040900
16	LUG	5556200810
17	FOOT	5547802110
18	CHASSIS	5547136800
19	SUPPORTER,PCB	5547530430
20	BUTTON	5541542400
21	SHIELDER	5547532000
22	BUTTON,PLAY	5541542000
23	COVER,LAMP	5542230300

NAD-5425
NAD-5420 EXPLODED VIEW



PACKING DIAGRAM



ITEM	PARTS NUMBER	NAME	QTY
1	5535122533	OWNER'S MANUAL	1
2	9520520255	PE-BAG	1
3	9520520155	POLYLON	1
4	9510522655 (5425)	GIFT-BOX	1
4	9510520755 (5420)	GIFT-BOX	1
* 5	5552000600 (5425)	REMOTE CONTROL	1
* 6	5553300011 (5425)	BATTERY	2

Parts marked * are applicable only to the model 5425.